

## WHAT IS CLAIMED IS:

1. A method for managing a patient with Alzheimer's disease or at risk of developing Alzheimer's disease comprising:  
providing to said patient a therapeutic agent which lowers A $\beta$  levels, and  
detecting a level of A $\beta$  in a body fluid of said patient to determine the efficacy of said therapeutic agent.
2. The method of claim 1 wherein said therapeutic agent is an HMG CoA reductase inhibitor, an NSAID, a secretase modifier or a combination thereof.
3. The method of claim 1, further comprising repeatedly detecting the level of A $\beta$  in a body fluid.
4. The method of claim 1, further comprising repeatedly providing said therapeutic agent according to a dosing interval.
5. The method of claim 4, further comprising repeatedly detecting the level of A $\beta$  in a body fluid.
6. The method of claim 5, further comprising comparing a detected level of A $\beta$  in said body fluid with at least one previously detected level of A $\beta$ .
7. The method of claim 6, further comprising adjusting the repeated dosing of said therapeutic agent based on said comparison.
8. The method of claim 1, wherein said body fluid is blood plasma or serum.
9. The method of claim 1, wherein said therapeutic agent is an HMG-CoA reductase inhibitor.

10. The method of claim 9, wherein said HMG-CoA reductase inhibitor is selected from the group consisting of mevastatin, pravastatin, simvastatin, atorvastatin, lovastatin, rivastatin, fluvastatin, pharmaceutically acceptable salts thereof, isomers thereof, and active metabolite thereof.
11. The method of claim 9, wherein said HMG-CoA reductase inhibitor is lovastatin or a pharmaceutically acceptable salt thereof.
12. The method of claim 9, wherein said HMG-CoA reductase inhibitor is in a controlled release oral dosage form.
13. The method of claim 1, wherein said levels of A $\beta$  are detected in said body fluid using an assay.
14. The method of claim 1, wherein said assay selected from the group consisting of radioimmunoassays, ELISA (enzyme linked immunosorbent assay), "sandwich" immunoassays, precipitin reactions, gel diffusion precipitin reactions, immunodiffusion assays, agglutination assays, complement-fixation assays, immunoradiometric assays, fluorescent immunoassays, western blots, protein A immunoassays, and immunoelectro-phoresis assays, and combinations thereof.
15. The method of claim 13, wherein said assay is an ELISA.
16. The method of claim 1, further comprising detecting a baseline level of A $\beta$  prior to providing said therapeutic agent.
17. A kit for an assay of A $\beta$  serum concentration comprising a capture-antibody and a detection-antibody, wherein said antibodies do not bind to overlapping epitopes of the A $\beta$  and wherein said antibodies allow specific detection of the A $\beta$ .
18. The kit of claim 17, wherein said capture-antibody is bound to a solid support and

said detection-antibody is coupled with a label.

19. The kit of claim 17, wherein the capture-antibody is an anti-A $\beta$  antibody that binds to an epitope between residues 17 and 20 of said A $\beta$  and the detection-antibody is an anti-A $\beta$  antibody that binds to an epitope at about residue 11.
20. The kit of claim 17, wherein said antibodies are monoclonal antibodies.
21. The kit of claim 17, further comprising a binding buffer, a wash buffer, a detection buffer, a control standard and label detection means.
22. A method for treating, preventing or inhibiting an APP processing disorder in a mammal comprising administering to said mammal a controlled release composition comprising an effective amount of at least one HMG-CoA reductase inhibitor to lower A $\beta$  levels.
23. The method of claim 22, wherein said method comprises lowering the amount of A $\beta$  peptide in the brain, cerebral spinal fluid, or plasma.
24. The method of claim 22, wherein lowering the amount of A $\beta$  peptides in the brain comprises affecting APP<sub>m</sub> processing.
25. The method of claim 22, wherein the APP processing disorder is Alzheimer's Disease or Down's Syndrome.
26. The method of claim 22, wherein the HMG-CoA reductase inhibitor is selected from the group consisting of mevastatin, pravastatin, simvastatin, atorvastatin, lovastatin, rivastatin, fluvastatin, and pharmaceutically acceptable salts, isomers and active metabolite forms thereof.
27. The method of claim 22, wherein the HMG-CoA reductase inhibitor is

lovastatin or lovastatin acid.

28. The method of claim 27, wherein up to 240 mg of the HMG-CoA reductase inhibitor is administered per day.
29. The method of claim 27, wherein about 10 to about 120 mg of the HMG-CoA reductase inhibitor is administered per day.
30. The method of claim 27, wherein about 10 mg to about 60 mg of the HMG-CoA reductase inhibitor is administered per day.
31. The method of claim 22, wherein about 0.2 mg to about 10 mg of the HMG-CoA reductase inhibitor per Kg of the mammal's body weight is administered per day.
32. The method of claim 22, wherein the composition comprises an amount of the HMG-CoA reductase inhibitor such that the average blood plasma concentration of the HMG-CoA reductase inhibitor or an active metabolite thereof at steady-state is below about 50 nanomolar.
33. The method of claim 22, wherein said lowering A $\beta$  results from increasing the clearance of A $\beta$  peptides.
34. A method for treating, preventing or inhibiting an APP processing disorder in a mammal comprising administering to said mammal a controlled release composition comprising an effective amount of at least one HMG-CoA reductase inhibitor to prevent or reduce A $\beta$  peptide aggregation or plaque formation in the brain of the mammal.
35. The method of claim 34, wherein the HMG-CoA reductase inhibitor decreases the formation of A $\beta$  peptides, increases the clearance of A $\beta$  peptides, regulates the processing of APP, or reduces plaque maturation in the mammal.

36. The method of claim 34, wherein the APP processing disorder is Alzheimer's disease and the method slows the progression of Alzheimer's disease.
37. The method of claim 34, wherein detected A $\beta$  levels are decreased by about 5% or more
38. A method for treating, preventing or inhibiting an APP processing disorder in a mammal comprising administering a composition which lowers the amount of cellular cholesterol levels in the mammal.
39. A method for managing a patient with Alzheimer's disease or at risk of developing Alzheimer's disease comprising:  
detecting a level of A $\beta$  in a body fluid of a patient receiving HMG-CoA reductase inhibitor therapy.
40. The method of claim 39, further comprising adjusting said HMG-CoA reductase inhibitor therapy based on said A $\beta$  level.